CHAPTER 8
MEDICAL WASTE

C8.1 SCOPE

This Chapter contains the Final Governing Standards (FGS) for the management of medical waste at medical, dental, research and development, and veterinary facilities generated in the diagnosis, treatment, or immunization of human beings or animals or in the production or testing of biologicals subject to certain exclusions. This also includes mixtures of medical waste and hazardous waste. It does not apply to what would otherwise be household waste.

C8.2 TERMS AND DEFINITIONS

Disposal. Off-installation transportation of waste for treatment, recycling, reuse, or permanent disposal.

EWC. European Waste Catalogue.

Hazardous Waste. All wastes having hazardous properties, which includes all "wastes requiring special supervision" *(besonders überwachungsbedürftiger Abfall)* and some "wastes requiring supervision" *(überwachungsbedürftiger Abfall).* The requirements do not specifically define which wastes requiring supervision are considered hazardous wastes (HW); this must be decided on a case by case basis. See Chapter 6, Hazardous Waste.

HMD. Landfill for household waste.

HMV. Incineration facility for household waste.

Infectious Agent. Any organism (such as a virus or a bacterium) that is capable of being communicated by invasion and multiplication in body tissues and capable of causing disease or adverse health impacts in humans.

Infectious Hazardous Waste. Mixtures of infectious medical waste and hazardous waste to include solid waste such as fluids from a parasitology laboratory.

Infectious Medical Waste. Solid waste produced by medical and dental treatment facilities which is specially managed because it has the potential for causing disease in man and may pose a risk to both individuals or community health if not managed properly. These wastes fall into categories B and C medical waste. Infectious medical wastes include the following classes.

- Microbiology waste, including cultures and stocks of etiologic agents which, due to their species, type, virulence, or concentration are known to cause disease in humans.
- Pathology waste, including human tissues and organs, amputated limbs or other body parts, fetuses, placentas, and similar tissues from surgery, delivery or autopsy procedures. Animal carcasses, body parts, blood and bedding are also included.
- Human blood and blood products (including serum, plasma, and other blood components), items contaminated with liquid or semi-liquid blood or blood products and

items saturated or dripping with blood or blood products, and items caked with blood or blood products that are capable of releasing these materials during handling.

- Potentially infectious materials including human body fluids such as semen, vaginal secretions, cerebrospinal fluid, pericardial fluid, pleural fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids.
- Sharps, including hypodermic needles, syringes, biopsy needles and other types of needles used to obtain tissue or fluid specimens, needles used to deliver intravenous solutions, scalpel blades, pasteur pipettes, specimen slides, cover slips, glass petri plates, and broken glass potentially contaminated with infectious waste.
- Infectious waste from isolation rooms, but only including those items which were contaminated or likely to be contaminated with infectious agents or pathogens to include excretion exudates and discarded materials contaminated with blood.

Installation. A base, camp, post, station, yard, center, or other activity under the jurisdiction of the Secretary of a Military Department that is located outside the United States and outside any territory, Commonwealth, or possession of the United States.

LAGA. Association of all German Federal States for developing guidelines for waste management.

Medical Waste. Solid waste produced by medical and dental treatment facilities which is further defined as Category A, B, C, D, or E medical waste:

Category A Medical Wastes. Wastes that do not have special disposal requirements from an infection prevention or a hygienic point of view. These include:

- Household waste and wastes similar to household wastes that are not generated as a direct result of heath service activities (e.g., magazines, paper, plastic and glass).
- Disinfected Category C wastes.
- Industrial wastes similar to household waste (e.g., wrapping material, cardboard cartons).
- Kitchen and canteen wastes.

Category B Medical Wastes. Wastes that have special requirements for disposal within the medical facility from an infection-prevention point of view. These include:

- Wastes contaminated with blood, secretions, and excretions such as bandages, plaster casts, disposable clothing, soiled diapers, as well as expendable articles including syringes, sharps and scalpels.
- Large volumes of fluid such as secretions and excretions.

Category C Medical Wastes. Wastes that have special requirements for disposal both within and outside the medical facility from an infection-prevention point of view. These include:

- These requirements apply, if a waste may carry any pathogenic agents of infectious diseases, that must be notified to authorities and if a spreading of this disease is of concern. These pathogenic agents include: cholera, leprosy, anthrax, paratyphoid fever (types A, B, and C), plague, pocks, poliomyelitis, dysentery (bacterial), rabies, "Tularaemie" (rabbit plague), viral "hemorrhagical" fever, "Brucellose", diptheria, meningitis/encephalitis, Q-fever, "Rotz" (malleus), tuberculosis (active form), and viral hepatitis.

  These type of wastes may be generated in the facilities such as infectious wards, dialysis wards, and dialysis centers with yellow dialysis, pathology, blood banks, and physicians' practices, as well as in veterinary medical practices and clinics. These wastes are normally generated through the treatment of a patient, for example, material contaminated with infectious secretions or excretions. This usually does not include wrapping materials.

- Wastes from facilities and medical activities such as microbiological cultures generated in institutes for hygiene, microbiology, and virus research, as well as in laboratory medicine and in physician's practices with similar activities. These include:

  - Test animals, where the spreading of infectious diseases is of concern.
  - Litter and excrements from test animal facilities, where the spreading of infectious diseases is of concern.

Category D Medical Wastes. Wastes that have special disposal requirements from an environmental point of view (i.e., hazardous wastes). Examples include:

- Solid mineral wastes, such as glass and ceramic wastes with dangerous contamination and used filters or absorption masses (silica, active soils, active charcoal) with dangerous contamination.
- Wastes from plant protection agents and pesticides as well as from pharmaceutical products, such as old stocks and residues of plant protection agents and pesticides, wastes resulting from the production and preparation of pharmaceutical products (including chemotherapy drugs), and disinfectants.
- Laboratory wastes and chemical residues identified as hazardous waste in Chapter 6, Hazardous Waste such as inorganic acids, acid mixtures, pickling solutions (acidic), lyes, lye mixtures, pickling solutions (alkaline), tetrachloromethane, solvent mixtures containing halogenated organic solvents, benzole, toluene, xylene, methanol and other liquid alcohols, solvent mixtures without halogenated organic solvents, fine chemicals, and the remains of laboratory organic or inorganic chemicals.
- Wastes from X-ray laboratories, such as lead or silver containing wastes, fixing baths, developing baths, and other concentrates.

- Non-iron metal-containing wastes, such as dental amalgams, nickel cadmium accumulators, batteries containing mercury, dry cells, mercury, mercury-containing residues, mercury vapor lamps, and fluorescent tubes.
- Mineral oils and synthetic oils, such as transformer oils, heat carrier oils, hydraulic oils, PCB containing products or wastes, fuels, and lubricants.
- Old or otherwise unsuitable medications excluding chemotherapy drugs.

Category E Medical Waste. Wastes that have additional disposal requirements from a sensitive and/or respectful point of view. For example, body parts and organ wastes.

Noninfectious Medical Waste. Solid waste created that does not require special management because it has been determined to be incapable of causing disease in man or which has been treated to render it noninfectious. These wastes fall into categories A, D, and E medical wastes. Category D and E medical wastes still require special handling.

SAD. Landfill for wastes requiring special supervision.

SAV. Incineration facility for wastes requiring special supervision.

Solid Waste. All moveable property (see Table C7.T2 of Chapter 7, Solid Waste) which the owner disposes or recycles, wishes to dispose or recycle, or must dispose or recycle. Disposal processes are listed in Table C7.T4 of Chapter 7, Solid Waste and recycling processes in Table C7.T3 of Chapter 7, Solid Waste.

Treatment. Any method, technique or process designed to change the physical, chemical, or biological character or composition of any infectious hazardous or infectious waste so as to render such waste non-hazardous, or less hazardous; safer to transport, store, or dispose of; or amenable for recovery, amenable for storage, or reduced in volume. Treatment methods for infectious waste must eliminate infectious agents so that they no longer pose a hazard to persons who may be exposed.

C8.3 GENERAL REQUIREMENTS

The following general requirements apply to the general handling and management of medical waste:

C8.3.1 During the internal (i.e., within the health care facility) transport and/or handling of medical waste, it must be classified and handled as Category A, B, C, D, or E medical waste. All classes of medical waste will be separated, if practical, with regard to their LAGA category or EWC key number at the point of origin. If medical waste is prepared for off-site transport and disposal, the nomenclature contained in the EWC should be used (see Table C8.T2).

C8.3.2 Mixtures of infectious medical wastes and hazardous wastes will be handled as infectious hazardous waste under DoD 4160.21-M (reference (l)) and are the responsibility of the generating DoD Component. Priority will be given to the hazard

that presents the greatest risk. Defense Reutilization and Marketing Offices (DRMOs) have no responsibility for this type of property until it is rendered noninfectious as determined by the appropriate DoD medical authority.

C8.3.3 Solid waste that is classified as a hazardous waste in accordance with Chapter 6, Hazardous Waste will be managed in accordance with the criteria in Chapter 6.

C8.3.4 Mixtures of other solid waste (e.g., Category A) and infectious wastes (e.g., Category B or Category C) will be handled as infectious medical waste and be classified with regard to the greatest risk.

C8.3.5 Radioactive medical waste will be managed in accordance with Service Directives.

C8.3.6 Category B and Category C medical waste must be segregated, transported and stored in disposable receptacles, reutilization receptacles, or in a combination of both. All types of containers must be lockable, moisture resistant, odor proof, able to withstand the hazards of being handled and moved, and durable enough to resist punctures and to prevent rupture or leaks during ordinary use. Bags or receptacles should be a minimum of 3 mils thick. Bag volumes should not exceed 70 L. Reutilization receptacles must be easy to clean and disinfect, and must be carefully maintained.

C8.3.7 All bags or receptacles used to segregate, transport or store infectious medical waste will be clearly marked with the universal biohazard symbol and the word "BIOHAZARD" and will include marking that identifies the generator, date of generation and the contents.

C8.3.8 Sharps will only be discarded into rigid and puncture resistant receptacles. Sharps/needles shall not be clipped, cut, bent, or recapped before disposal.

C8.3.9 Infectious medical waste will be transported and stored to minimize human exposure, and will not be placed in chutes or dumbwaiters.

C8.3.10 Infectious medical waste will not be compacted unless converted to noninfectious medical waste by treatment as described in subsection C8.3.17. Containers holding sharps will not be compacted.

C8.3.11 All anatomical pathology waste (i.e., large body parts) will be placed in containers lined with plastic bags that comply with subsection C8.3.6 so that the contents are not visible until its final disposal. All anatomical pathology waste must only be disposed of by burial after being treated for disposal by incineration or cremation.

C8.3.12 HANDLING OF BLOOD AND BLOOD PRODUCTS

Blood, blood products, and other liquid infectious wastes will be handled as follows:

C8.3.12.1 Bulk blood or blood products of Category B may only be decanted into clinical sinks and the emptied containers will be managed as Category B medical waste.

Bulk blood or blood products of Category C may be decanted into clinical sinks after disinfection and the emptied containers will be managed as Category C medical waste. Non-disinfected Category C waste must be managed as hazardous waste and incinerated.

Bulk blood or blood products of Category E may only be collected in appropriate containers. Filled containers must be managed as Category E medical waste.

C8.3.12.2 Suction canister waste from operating rooms will either be decanted into a clinical sink (Category B or disinfected Category C waste) or will be sealed into leak-proof containers and incinerated (e.g., non-disinfected Category C waste).

C8.3.13 PERSONAL PROTECTIVE EQUIPMENT

C8.3.13.1 All personnel handling infectious medical waste will wear appropriate protective apparel or equipment such as gloves, coveralls, mask, and goggles sufficient to prevent the risk of exposure to infectious agents or pathogens.

C8.3.13.2 The Facility Commander of a medical facility is obligated to implement necessary hygienic measures and to provide individual personnel protective equipment as well as protective apparel.

C8.3.13.3 The Facility Commander must provide:

C8.3.13.3.1 Appropriate apparel in sufficient number.

C8.3.13.3.2 Thin and waterproof gloves, if personnel hands have the potential to contact blood, excrement, pus, or skin affecting substances.

C8.3.13.3.3 Rigid and waterproof gloves for disinfecting and cleaning used instruments and surfaces.

C8.3.13.3.4 Waterproof aprons, if permeation of the protective apparel may be a concern.

C8.3.13.3.5 Waterproof footwear, if drenching of shoes may be a concern.

C8.3.13.3.6 Face and head protecting wear, if sparkling or spraying of infectious substances may be a concern and other technical measures do not provide sufficient protection.

C8.3.13.4 The Facility Commander is responsible for ensuring that procedures are established and that facilities are available for the disinfection, cleaning, and maintaining of the supplied apparel.

C8.3.13.5 The Facility Commander must ensure that separate storage facilities are available for protective apparel and other clothing.

C8.3.13.6 The functionality and effectiveness of the technical protection measures must be examined regularly in order to minimize the contamination of the work place and the exposure of employees.

C8.3.13.7 Employees must remove all protective apparel before entering day rooms or dining rooms.

C8.3.13.8 Employees are not allowed to eat and drink at work places that may be contaminated with biological material. Separate rooms must be provided for eating and drinking.

C8.3.14 STORAGE REQUIREMENTS

If infectious medical waste cannot be treated on-site, it will be managed during storage as follows:

C8.3.14.1 Infectious medical waste collected at the point of generation can only be stored at this location for a maximum of 24 hours before it must be transferred to an internal central storage location. The storage sites at the point of generation must be well ventilated in order to prevent odor annoyance. Provisions for hand cleaning and disinfecting must exist nearby.

C8.3.14.2 Infectious medical waste may not be stored in aisles or in front of elevators at any time (not even on a temporary basis).

C8.3.14.3 Infectious medical waste storage locations should be designed and operated to avoid dust or odor annoyance, and pest attraction.

C8.3.14.4 Non-refrigerated infectious medical waste should be transported for disposal at least twice a week.

C8.3.14.5 Category C must be stored in accordance with the requirements of the following:

Duration time	Temperature
14 days	Maximum 5^{o}C (41°F)
Maximum of 7 days (168 hours)	15^{o}C (59°F)
Maximum of 4 days (96 hours)	Cooling is not required.

C8.3.14.6 If Category B, C or E medical waste cannot be treated on-site, it will be maintained in a nonputrescent state, using refrigeration as necessary.

C8.3.14.7 Infectious medical waste with multiple hazards (i.e., infectious hazardous waste, or infectious radioactive waste) will be segregated form the general infectious waste stream when additional or alternative treatment is required.

C8.3.15 STORAGE SITES

Storage sites must meet the following requirements:

C8.3.15.1 All collected medical waste must be stored at an internal central location, which is specifically designated and designed for that function.

C8.3.15.2 The central medical waste storage location must be constructed to prevent entry of insects, rodents, and other pests.

C8.3.15.3 The central medical waste storage location must be lockable to prevent access by unauthorized personnel.

C8.3.15.4 The central medical waste storage location must be marked on the outside with the universal biohazard symbol and the word "BIOHAZARD" in both English and German *("Biogefährdeng").*

C8.3.15.5 Rooms for the internal central storage of medical waste must be situated in an area of the medical facility, so that impacts on other non-clinical sections (e.g., kitchen, nursing areas) are minimized.

C8.3.15.6 The central storage location should be easy to access from outside to facilitate waste transport. Central storage rooms must be designed in order to enable the application of approved disinfecting measures. The central storage location for Category C wastes must be in a separate storage room

C8.3.15.7 A location for cleaning and disinfecting hands, as well as for changing coveralls, must be installed in close proximity to the central storage location.

C8.3.16 MEDICAL WASTE CONTAINERS

Bags and receptacles containing infectious medical waste must be placed into rigid or semi-rigid, leak-proof containers before being transported off-site.

C8.3.16.1 Before being transported off-site, bags and receptacles containing Category C or Category E waste must be placed into containers that meet the following requirements:

- rigid or semi-rigid so as to be puncture resistant;
- waterproof;
- leak-proof;
- able to be disinfected;
- germ resistant;
- lockable;
- approved with respect to the manner of construction; and
- the containers must be labeled in German and English with the name of the waste generating installation, date of waste generation, and the associated UN-number. The containers must be supplied with an accompanying document on which it includes in German *"Ansteckungsgefahr, bei*

Beschädigung oder Auslaufen unverzüglich zuständige Gesundheitsbehörde benachrichtigen" ("Infection Danger – in case of damage or leakage, immediately notify the local health authority").

C8.3.16.2 The internal transfer of medical waste containers must meet the following requirements.

- The internal collection and transportation system must be compatible with the external disposal procedures beyond the medical facility.
- Wastes whose improper utilization could be a danger to the public, must be inaccessible for unauthorized persons.
- The internal transfer of wastes to a central storage or transfer site, must occur in such a way that pathogenic agents may not escape.
- It is prohibited to re-open or transfer (to a location other than the central storage site) containers with Category C and Category E wastes, or to sort these wastes.

C8.3.17 TREATMENT AND DISPOSAL REQUIREMENTS

Infectious medical waste must be treated in accordance with Table C8.T3 and the following before disposal. Additionally, disposal of medical waste should be in general accordance with Table C8.T1.

C8.3.17.1 Sterilizers must maintain the temperature at 121°C (250°F) for at least 30 minutes at 15 psi.

C8.3.17.2 The effectiveness of sterilizers must be checked at least weekly using Bacillus stearo thermophilus spore strips or an equivalent biological performance test.

C8.3.17.3 Incinerators used to treat medical waste must be designed and operated to maintain a minimum temperature of 850^{o}C and a retention time of 2 seconds, even under disadvantageous conditions, homogenous mixing and an oxygen volume share of 6 percent presumed. They must meet applicable criteria in Chapter 2, Air Emissions.

C8.3.17.4 All ash and/or residue from the incineration of medical waste must be managed as a hazardous waste and disposed of in a landfill for waste requiring special supervision (SAD).

C8.3.17.5 Chemical disinfection is not permitted as a means of treatment for Category C medical waste.

C8.3.18 CONTINGENCY PLANS

Installations will develop contingency plans for treatment or disposal of infectious medical waste should the primary means become inoperable.

C8.3.19 MEDICAL WASTE SPILLS

Spills of infectious medical waste will be cleaned up as soon as possible in accordance with the following:

C8.3.19.1 Response personnel must comply with subsection C8.3.13.

C8.3.19.2 Blood, body fluid, and other infectious fluid spills must be removed with an absorbent material that must then be managed as infectious medical waste.

C8.3.19.3 Surfaces contacted by infectious medical waste must be washed with soap and water and chemically decontaminated in accordance with paragraph C8.3.17.5.

C8.3.20 RECORDKEEPING

C8.3.20.1 Installations will maintain records, for at least three years after the date of disposal, of the following information concerning infectious medical waste:

C8.3.20.1.1 Type of waste (in accordance with the EWC);

C8.3.20.1.2 Amount of waste (volume or weight);

C8.3.20.1.3 Treatment, if any, including date of treatment; and

C8.3.20.1.4 Disposition, including date of disposition, and if the waste is transferred to host nation facilities, receipts acknowledging paragraphs C8.3.20.1 – C8.3.20.3 for each transfer.

C8.3.20.2 The installation must maintain this information in a central location (i.e., file, binder, or other suitable means). The installation must maintain the following information as part of this recordkeeping: the accompanying documentation *(Begleitscheine),* acceptance slips *(Übernahmescheine),* and disposal manifests *(Entsorgungsnachweise).*

C8.3.20.3 All accompanying documentation must be filed within 10 days of receipt and records must be kept in chronological order.

C8.3.21 GENERAL PRINCIPALS OF MEDICAL WASTE MANAGEMENT

C8.3.21.1 The management of medical waste should incorporate the following concepts:

C8.3.21.1.1 To the maximum extent possible, the generation of medical waste should be avoided, specifically through a reduction in the amount of waste generated and its hazard characteristics.

C8.3.22 WASTE MANAGEMENT OFFICER

C8.3.22.1 A waste management officer must be appointed at all DoD clinics and hospitals.

C8.3.22.2 The waste management officer must submit an annual report to the Facility Commander of the organization, concerning measures taken and planned with respect to their duties.

C8.3.22.3 Additional duties of the waste management officer shall include:

C8.3.22.3.1 Providing advice regarding medical waste management to the Facility Commander and employees.

C8.3.22.3.2 Tracking waste generated at the facility from its point of generation to disposal.

C8.3.22.3.3 Supervising compliance at the facility with regard to medical waste management through regular inspections of facilities and evaluating the type and nature of waste generated, recycled, or disposed; and, to provide information regarding identified deficiencies and to make proposals for correcting these deficiencies.

C8.3.22.3.4 Informing personnel with regard to any negative impact on the public interest and/or health that could result from the waste generated, recycled, or disposed of in the facility, as well as, considering the implementation of any measures for preventing such impacts.

C8.3.22.3.5 Encouraging the development and introduction of:

- environmentally-friendly, low waste-producing procedures, including procedures for the avoidance, proper, and safe recycling and/or disposal or waste;
- environmentally-friendly, low waste-producing products, including procedures for reuse, recycling, and/or disposal upon completion of these products.

C8.3.22.3.6 Cooperating in the development and introduction of procedures (referenced above), by studying relevant procedures and products related to closed-loop waste management and disposal.

C8.3.22.3.7 Encouraging the improvement of relevant procedures in facilities in which waste is recycled or disposed.

C8.3.23 WASTE MANAGEMENT PLANS AND WASTE REGISTRY

Medical facilities that annually produce greater than 2,000 kg of waste requiring special supervision or 2,000 tons of waste requiring supervision per waste type, must prepare a Waste Management Plan and an annual Waste Registry.

C8.3.23.1 The Management Plan must address waste avoidance, reuse, and disposal of wastes generated at the facility and be updated at least every 5 years.

C8.3.23.2 The Waste Registry should include information related to an analysis of the type, amount, and storage of wastes requiring special supervision, and of waste requiring special supervision that has been recycled or disposed during the previous year.

C8.3.23.3 Both the Waste Management Plan and Waste Registry must be submitted to the competent authorities upon request. A Waste Management Plan and a Waste Registry must be prepared for each individual medical facility meeting the criteria of C8.3.23.

C8.3.24 HAZARDOUS MEDICAL WASTE

C8.3.24.1 Laboratory Wastes and Chemical Residues

C8.3.24.1.1 Laboratory wastes that are subject to reuse or recycling must be segregated with respect to their specific chemical substances.

C8.3.24.1.2 Laboratory chemicals and solvents must be collected and preferably reused, if the required costs are reasonable compared to other disposal costs.

C8.3.24.2 Wastes from X-Ray Laboratories

C8.3.24.2.1 Recovery methods should be implemented with regard to treating fixing and developing baths. Used films and lead foils should be recovered for reuse.

C8.3.24.3 Non-Iron Metal-Containing Wastes

C8.3.24.3.1 Wastes containing heavy metals must be segregated and processed separately for disposal. This applies particularly to mercury containing wastes. Mercury filled thermometers should no longer be purchased. If reuse is not possible, mercury waste must be disposed in accordance with Chapter 6, Hazardous Waste.

C8.3.24.3.2 Dry-cell batteries should be substituted by rechargeable batteries. Batteries that cannot be reused must be disposed of as waste requiring special supervision.

C8.3.24.3.3 Fluorescent tubes should be recovered for reuse. If reuse is not possible, these wastes must be disposed in accordance with Chapter 6, Hazardous Waste.

C8.3.24.3.4 Dental liquid wastes containing amalgam may only be discharged into public sewer lines, if a discharge license has been issued by the competent water authority. Procedures for obtaining licenses are addressed in Chapter 1, Overview. The amalgam load of the dental wastewater must be reduced at the place of origin by 95 percent through the use of amalgam separators. Amalgam containing wastes must be segregated and disposed through companies that are capable of recovering the zinc, silver, or mercury in the wastes.

C8.3.24.4 Mineral Oils and Synthetic Oils

C8.3.24.4.1 PCB-contaminated medical wastes must be processed and disposed according to the requirements presented in Chapter 14, Polychlorinated Biphenyls.

C8.3.24.5 Out-dated Medications and Chemotherapy Drugs

C8.3.24.5.1 Out-dated medications must be collected and handled separately from other wastes in order to prevent misuse.

C8.3.24.5.2 Chemotherapy drugs must be segregated from other out-dated medicines and preferably disposed by incineration for waste requiring special supervision. This is not applicable for materials that are generated as wastes through the handling of chemotherapy drugs or have only been contaminated with these drugs in a small amount. These wastes should be separated, and may be processed as Category B medical wastes.

Table C8.T1 Appropriate Waste Disposal Paths

Category	Waste Types	Disposal Path
A	Household waste, disinfected waste, household similar industrial waste, kitchen and canteen waste	▪ Reuse and Recycling (wrapping material, paper, card boards, glass, metal, plastics) ▪ Composting ▪ HMD, HMV
B	Waste contaminated with blood and secretions	▪ Reuse and Recycling (separate from A-waste) ▪ HMD, HMV
C + E	Infectious waste Wastes with special requirements from an ethical point of view	After disinfection: HMD, HMV Without disinfection: SAV
D	Chemotherapy drugs	SAV
	Old medications	SAV, HMV, HMD
	Solid mineral wastes, residues of laboratories and chemicals, wastes from X-ray laboratories, mineral oils and synthetic oils	▪ SAV, SAD, CPB, UTD ▪ Special recovery measures

Abbreviations:

HMV	Incineration facility for household waste
HMD	Landfill for household waste
SAV	Incineration facility for waste requiring special supervision
SAD	Landfill for waste requiring special supervision
UTD	Underground landfill
CPB	Facility for chemical/physical and biological treatment

Table C8.T2 Medical Waste Classification System

EAKV Waste key	EAKV Waste Name (Type of waste including characteristics and composition)	LAGA-Classification	Waste requiring special supervision
18	**Waste from human or animal health care and/or related research (except kitchen and restaurant waste not arising from immediate health care)**		
18 01	Waste from obstetric care, diagnosis, treatment or prevention of disease in humans		
18 01 01	Sharps	Category B	
18 01 02	Body parts and organs, including blood bags and preserved blood	Category E	X*
18 01 03	Waste collection and disposal which is subject to special requirements with regard to the prevention of infection	Category C	X
18 01 04	Waste collection and disposal which is not subject to special requirements with regard to the prevention of infection (e.g., dressings, plaster casts, linen disposable clothing, diapers)	Category B	
18 01 05	Discarded chemicals and medicines	Category D	X
18 01 05 D[1]	Chemotherapy drugs	Category D	X
18 02	Waste from research, diagnosis, treatment or prevention of disease involving animals		
18 02 01	Sharps	Category B	
18 02 02	Waste collection and disposal which is subject to special requirements with regard to the prevention of infection	Category C	X
18 02 03	Waste collection and disposal which is not subject to special requirements with regard to the prevention of infection	Category B	
18 02 04	Discarded chemicals	Category D	X
20	**Municipal Waste (household waste and similar commercial, industrial and institutional waste) including separately collected fractions**		
20 03 01	Other mixed municipal waste including mixed municipal waste	Category A	
Various	Various chemicals, collected separately	Category D	X

* waste with special disposal requirements from a sensitive and/or respectful point of view

Table C8.T3 Treatment and Disposal Methods for Infectious Medical Waste

Type of Medical Waste	Method of Treatment	Method of Disposal
Microbiological	[1] *Steam sterilization*	[2] Municipal solid waste landfill (MSWLF)
	Incineration	MSWLF
Pathological	[3] Incineration	MSWLF
	[3] Cremation	Burial
	[4] *Steam sterilization*	[5] Domestic wastewater treatment plant (DWTP)
Bulk blood & suction canister waste	[6] Steam sterilization	DWTP
	[6] Incineration	MSWLF
Sharps in sharps containers	Steam sterilization	MSWLF
	Incineration	MSWLF

[1] Preferred method for cultures and stocks because they can be treated at point of generation.

[2] See Chapter 7, Solid Waste for criteria for solid waste landfills.

[3] Anatomical pathology waste (i.e., large body parts) must be treated either by incineration or cremation prior to disposal.

[4] This only applies to placentas, small organs and small body parts which may be steam sterilized or chemically sterilized, ground, and discharged to a domestic wastewater treatment plant.

[5] See Chapter 4, Wastewater for criteria for domestic wastewater treatment plants.

[6] Bulk blood or suction canister waste known to be infectious must be treated by incineration or steam sterilization before disposal.